

## **REMARKS**

Applicants appreciate the detailed examination evidenced by the Office Action mailed August 10, 2007 (hereinafter "Office Action"). In response, Applicants have amended the pending independent claims to further clarify the patentable subject matter recited therein relative to Kumar and Slaughter. Applicants have also added a new independent Claim 37 and have made several amendments to the specification and claims adopting the suggestions made by the Examiner. Accordingly, Applicants respectfully submit that the pending claims are in condition for allowance for at least the reasons described herein.

### **The Specification Has Been Amended**

The specification stands objected to over MPEP § 608.01. Office Action, page 2. In response, Applicants have amended the cited paragraph to remove the reference to the embedded hyperlink highlighted by the Examiner. Accordingly, the objections to the disclosure have been addressed by amendment and should be withdrawn.

### **The Objections To The Claims Have Been Addressed**

The dependent claims stand objected to over the recitation of various informalities therein. Office Action, page 2. In response, Applicants have amended the dependent claims as suggested by the Examiner to change the first word in each of the dependent claims from "A" to "The" as suggested by the Examiner. Accordingly, these objections to the claims should be withdrawn.

### **Amended Independent Claim 13 Complies With 35 U.S.C. 112**

Claim 13 stands rejected under 35 U.S.C. 112, first paragraph. Office Action, page 2. In response, Applicants have amended independent Claim 13 to include the recitations of dependent Claim 14. Accordingly, the rejection of Claim 13 based on section 112 has been overcome by amendment and should be withdrawn.

### **Independent Claims Are Patentable Over Kumar and Slaughter**

Claims 1-10, 13-22, and 25-34 stand rejected under 35 U.S.C. § 102 over U.S. Patent No. 6,278,993 to Kumar et al ("Kumar"). Further, Claims 11-12, 23-24, and 35-36 stand

rejected under 35 U.S.C. § 102 over U.S. Patent No. 6,973,493 to Slaughter et al. ("Slaughter"). Office Action, page 6. In response, Applicants have amended each of the independent claims rejected over Kumar and Slaughter to further clarify the patentable subject matter recited therein. For example, independent Claim 1 has been amended to recite in part:

A method of configuring nodes for service requests **in an Open Grid Services Architecture (OGSA)**, the method comprising:  
transmitting an **OGSA** operational rule from a first **OGSA** service node that receives a request for service to a second **OGSA** service node that is configured to apply the **OGSA** operational rule to the request for service in response to the request from the first **OGSA** service node for service, **wherein the OGSA operational rule comprises a rule that specifies that the same request made by two different OGSA service nodes is to have different operations provided in response thereto based on which service node made the request.**

which is not disclosed or suggested by Kumar or Slaughter in accordance with section 102. In particular, Applicants' disclosure particularly defines what is meant by the term "open grid services architecture (OGSA)":

Embodiments according to the invention can operate within what is sometimes referred to as an Open Grid Services Architecture (OGSA). In an OGSA system, world-wide-web, (i.e. Web) services can provide a framework for application-to-application interaction that grants access to services via the Internet. These services can allow a more extensive use of the Web's functionality by supporting automatic processes involving machine-to-machine cooperation and interaction. The infrastructure used to provide these services (as well as data) is sometimes referred to as a "grid." As used herein, a grid can be a geographically distributed set of heterogeneous machines that are configured to communicate with one another via a network (such as the Internet). The heterogeneous machines that provide services in the grid are sometimes referred to as service nodes. In operation, a service node within the grid can request service from another service node within the grid. Furthermore, the service node to which this request for service is made can propagate the request to yet other service nodes within the grid, which ultimately results in the requested service being provided to the requesting node. OGSA, and grid architecture in general, is described further, for example, on the Internet at [globus.org](http://globus.org), the contents of which are incorporated herein by reference. In particular, the Globus Alliance has published various articles and presentations which discuss the infrastructure and architecture. One such article published by Globus (and also available on the Internet) is entitled *The Physiology of the Grid* and is available at [globus.org/OGSA/](http://globus.org/OGSA/), the

contents of which are incorporated herein by reference. Other Globus articles are also available on the Internet generally and specifically at the above website. (See specification, as amended, page 5, line 22 – page 6, line 10).

As shown by the above-cited passage of Applicants' disclosure, the term open grid services architecture has a specific meaning in the art, which is not disclosed by Kumar or Slaughter. To the contrary, both Kumar and Slaughter appear to relate to interactive type sessions that are established and carried on while a user interacts with a server, whereas the claimed open grid services architecture methods, systems, and computer programs products focus on propagation of rules through a grid which may be provided in the absence of any actual requests. For example, as described in Applicants disclosure:

Embodiments according to the invention can provide methods, systems, and computer program products for configuring rules for service nodes in grid service architecture systems. In some embodiments according to the invention, operational rules are transmitted from a first service node that receives a request for service to a second service node that is configured to apply the operational rule to requests for service in response to the request. For example, operational rules can be propagated from a primary node to a secondary node that operates responsive to the primary node, wherein the operational rule defines how the secondary node is to process the request for service from the primary node. Furthermore, the operational rules provided by the primary node can be propagated in a hierarchical fashion throughout the grid to other nodes. For example, if a third and fourth level of nodes are registered with the secondary node, the secondary service node can propagate the operational rule provided by the primary node to the third and fourth service nodes. (See page 6, line 18-30)

Accordingly, embodiments according to the invention as disclosed and claimed by Applicants, focus on propagating rules through service nodes, which may occur in the absence of any actual requests for service, but rather are provided in anticipation of subsequent requests for service. Accordingly, Applicants respectfully submit that neither Kumar nor Slaughter discloses this specific type of architecture claimed by Applicants.

However, in an effort to further clarify the patentable subject matter with respect to Kumar and Slaughter, Applicants have also amended the independent claims to recite in part:

wherein the OGSA operational rule comprises a rule that specifies that the same request made by two different OGSA service nodes is to have different operations provided in response thereto based on which service node made the request.

See for example, Claims 1, 11, 13, 23, 25, and 35 as demonstrated by these detailed recitations added to the independent claims, the OGSA operational rule comprises a rule that specifies that the same request made by two different OGSA service nodes can invoke two different operations, based on which service node actually made the request. For example, as described in Applicants disclosure:

Fig. 4 is a flow diagram that illustrates operations of methods, systems, and computer program products according to embodiments of the invention. In particular, a service grid 400 illustrates how operational rules can reflect different business terms and conditions associated with different service providers. In some embodiments according to the invention, the service grid 400 shown in Fig. 4 can provide service for insurance claims made by employees of different employers represented by first and second primary service nodes 405 and 450. A secondary service node 410 is registered with both the first and second primary service nodes 405 and 450. Furthermore, the secondary service node 410 includes operational rules (propagated by the first and second primary service nodes 405 and 450) for handling requests made by the different primary service nodes. For example, if a request for service is made by Employee A of a company represented by the first primary service node 405, the secondary service node 410 can apply a rule that limits the coverage of the claim to \$500.00 whereas the secondary service node 410 can apply a second operational rule that applies a coverage limit of \$1,000.00 to service requests made by employees of a company represented by the second primary service node 450. (See page 10, line 11-26).

As shown by the above-cited passage of Applicants' disclosure, in some embodiments according to the invention, the operational rules can specify that the same request from different nodes can be processed differently (*e.g.*, given these different discounts). Accordingly, Applicants respectfully submit that neither Kumar nor Slaughter discloses or suggests these detailed recitations of the amended independent claims. Furthermore, Applicants respectfully submit that dependent claims are patentable for at least the reasons described above in reference to the amended independent claims.

#### **New Independent Claim 37 is Patentable**

Applicants have also added new independent Claim 37, which recites:

A method of configuring Open Grid Services Architecture (OGSA) nodes for service requests in a hierarchical OGSA network, the method comprising:

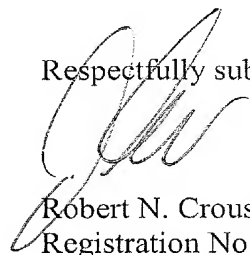
transmitting an OGSA operational rule from a high level hierarchical OGSA service node to a lower level hierarchical OGSA service node that is configured to receive requests for service from a plurality of other OGSA service nodes, wherein the OGSA operational rule specifies that the lower level hierarchical OGSA service node is to apply different operations to the same request originating from two different OGSA service nodes included in the plurality of other OGSA service nodes.

Applicants respectfully submit that the cited references do not disclose or suggest the recitations of independent Claim 37.

### CONCLUSION

Applicants have significantly amended the independent claims to further clarify the patentable subject matter recited therein relative to Kumar and Slaughter, including the reference to the specific open grid services architecture, as well as clearly defining the function of the claimed operational rule. Accordingly, Applicants respectfully request the withdrawal of all rejections and the allowance of all claims. If any informal matters arise the Examiner is encouraged to contact the undersigned representative at (919) 854-1400 to resolve any remaining formal issues.

Respectfully submitted,

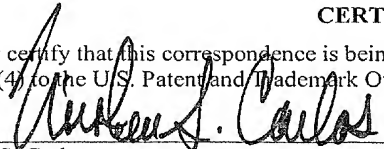


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I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) for the U.S. Patent and Trademark Office on November 13, 2007.



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